

## **LITERACY AND CHILDREN WHO ARE DEAF OR HARD OF HEARING**

Learning to read is critical to educational, social, and professional development. The task of learning to read is more difficult for children who can't hear because, first, they can't hear the words and therefore, can't sound them out phonetically. Secondly, many deaf children have limited knowledge of the vocabulary and grammar that print represents, therefore, it's more difficult to predict or infer meaning. Traditionally, many deaf adults do not attain a reading level above the fourth or fifth grade level (Holt, 1994). Ironically, reading and writing are more critical for people who are deaf than for hearing people, because they rely on print many times to communicate, using e-mails, TTYs, and other written communication.

There are two basic views of literacy and deaf children. Some espouse that deaf children learn to read using essentially the same processes as hearing persons. Others say that deaf individuals read using qualitatively different processes.

It has been hypothesized that the relatively poor reading skills of deaf individuals result from problems with phonological processing, since most hearing readers encode print by sounding words out phonetically and some deaf children, even with amplification, are not able to hear many of the speech sounds. This encoding is important, because it allows a person to hold chunks of text in their short-term memory long enough for higher level processors to assign meaning to it for overall comprehension. Some studies have shown that the degree to which deaf student use a phonological code predicts their level of reading comprehension. This is another, "chicken or the egg" dilemma, though, because it's possible that the ability to use this phonological code is an outcome of learning to read, rather than a prerequisite to learning to read. A number of researchers have argued that the "phonological" code used by deaf readers may in reality, be based on speech movements. Chalifoux (1991) proposed that deaf readers assemble a visual representation of the text by converting the letter combinations into articulatory movements (as opposed to hearing readers who convert them to a phonemes, or sounds, and retain them in an acoustic store). Other studies have shown that deaf readers encode using fingerspelling (Padden and Ramsey, 1998; Lichtenstein, 1998), orthography (Conrad, 1979) or sign language (Mayberry & Waters, 1987). Lichtenstein concluded that deaf readers use multiple encoding strategies.

Many researchers have focused on the communication methodology used by deaf individuals, its influence on their knowledge of language in general and the grammar and vocabulary of English, and how that influences their literacy skills. Once again, there is conflicting evidence presented. In general, most studies do show that aural/oral (A/O) students have superior reading skills to those using Total Communication. These results are thought invalid by some who argue that oral students also typically have more hearing and/or are from higher socioeconomic backgrounds, which influences reading in the general population. Other studies show that of those who use sign language, deaf students of deaf parents have better language and academic skills. This is attributed to the fact that students with a base language of American Sign Language develop more

effective semantic and syntactic strategies that can be applied to comprehending printed English. Yet other studies show that students exposed to English-based sign systems had an advantage. Musselman (2000) concluded that no one knows yet how deaf children learn to read, and that we are still unsure of whether the processes they use are Literacy, qualitatively similar or dissimilar to those used by hearing children. “Research is only beginning to elucidate the manner in which deaf children access printed language and the instructional strategies that best facilitate their learning” (Musselman, 2000).

For those deaf or hard of hearing children whose sensory devices enable them to access and process speech as hearing children do, teaching strategies may follow those used with hearing children. Those children who are not receiving the speech sounds adequately auditorily will need to learn to read using other strategies. Educational programs that have a bilingual-bicultural philosophy use ASL to teach and introduce English as a second language through print. Proponents of this philosophy acknowledge the importance of general world knowledge in the development of reading and writing, and view ASL as the natural language for deaf children, and therefore, a critical tool that allows children to build and process knowledge of the world around them. They then promote a metalinguistic awareness in the children of the differences between ASL and printed English. As with most theories of literacy, parent involvement is an essential aspect for bilingual education. If parents are unable to sign fluently with their children in ASL to read stories, deaf mentors may be brought in as models until the parents achieve fluency. The “Shared Literacy Project” at Gallaudet University presents workshops to assist professionals in developing this type of program.

Some strategies used to promote literacy in children who are deaf are listed for you below. These ideas come from many sources, including David Schleper, a specialist in literacy and deafness and a proponent of whole language for deaf children.

- Have age-appropriate books on-hand
- Choose books that you and the child like
- Let child see book, your face and signs simultaneously (use of mirror for reading)
- Don't be limited by the print – expand on pictures
- Be dramatic – use props, exaggerate, use facial expression to show different characters
- Vary location of signing – on book, on child, etc.
- Keep child's attention with gentle tap or nudge
- Let child turn pages
- Read a story several times if child asks
- Act out the story together after reading it

Many educators use whole language strategies with children who are unable to encode words phonetically. Some use Cued Speech when reading, signed English, more fingerspelling, or creative combinations of these methods, depending on the strengths and the needs of the individual child. Despite the method used, print should become an important part of everyday routines, and the value of reading and writing should be emphasized in varied activities throughout the day.

